



MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: January 2019

Obtained Date: 15 February 2019

Publication Date: 25 January 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	17/01/2019	Yes			<5
	Conductivity	µs/cm		1	17/01/2019	Yes			1060
	Oil & Grease	mg/L		1	17/01/2019	Yes			<5
	pH	pH		1	17/01/2019	Yes			7.65

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	Next sample March 2019				
	Conductivity	µs/cm							
	TDS	mg/L							

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	14/01/2019	23:00	0.5	<25	35	<25	45	0	Nil
NM2	15/01/2019	00:00	0.4	<20	39	<20	45	0	Nil
NM3	15/01/2019	01:00	0.6	IA	35	IA	45	0	Nil
NM4	14/01/2019	23:25	0.8	IA	35	IA	45	0	Nil
NM5	14/01/2019	22:30	0.5	25	35	30	45	0	Nil
NM6	15/01/2019	00:28	0.5	IA	35	IA	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	Db (Lin Peak)	All	8	93.1	105.8	120	No
	Vibration	mm/s		8	0.20	0.83	10	No

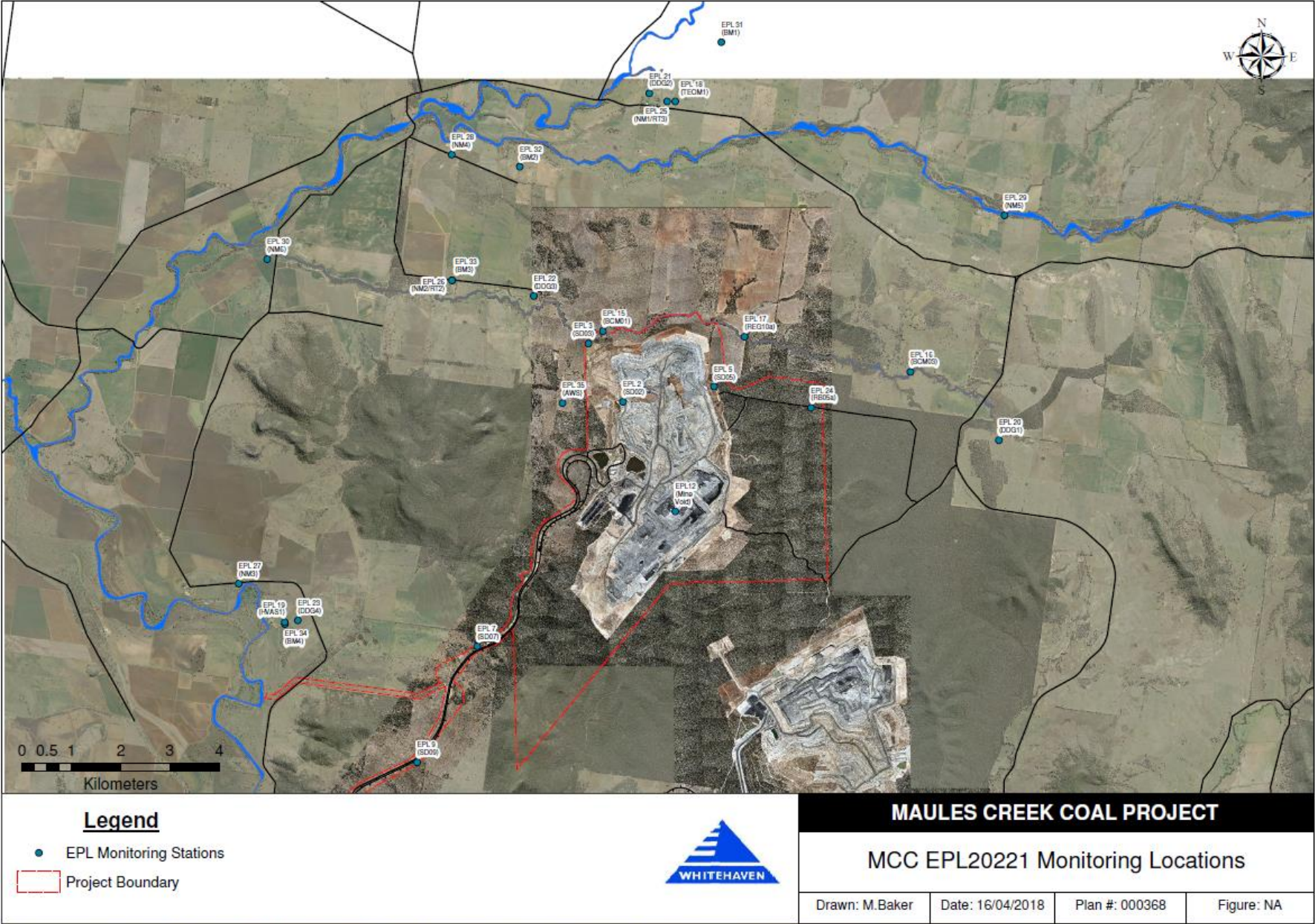
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	17.1	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	23.6	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	1.6	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.5	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	3.0	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	2.4	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: February 2019

Obtained Date: 15 February 2019

Publication Date: 22 March 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	17/01/2019	Yes			<5
	Conductivity	µs/cm		1	17/01/2019	Yes			1430
	Oil & Grease	mg/L		1	17/01/2019	Yes			<5
	pH	pH		1	17/01/2019	Yes			7.98

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	Next sample March 2019				
	Conductivity	µs/cm							
	TDS	mg/L							

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	06/02/2019	22:30	4.0	IA	35	<25	45	0	Nil
NM2	06/02/2019	23:00	4.3	<30	39	<30	45	0	Nil
NM3	07/02/2019	00:00	5.2	IA	35	IA	45	0	Nil
NM4	06/02/2019	23:30	4.6	IA	35	IA	45	0	Nil
NM5	06/02/2019	22:00	5.0	IA	35	IA	45	0	Nil
NM6	07/02/2019	00:00	5.2	IA	35	IA	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	Db (Lin Peak)	All	6	97.9	106.3	120	No
	Vibration	mm/s		6	0.23	1.09	10	No

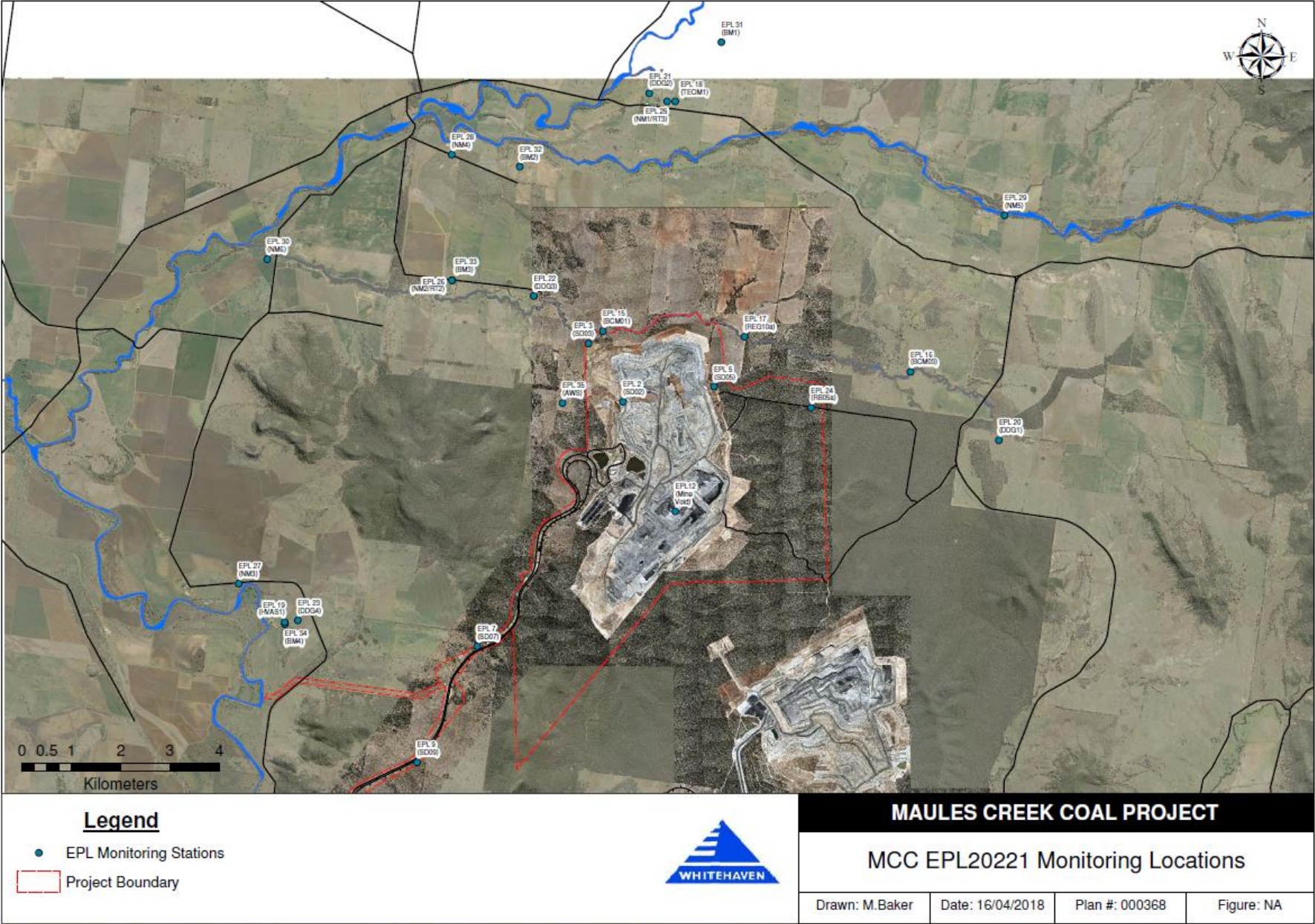
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	18.0	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	26.1	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	1.9	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.4	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	2.9	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	2.4	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: March 2019

Obtained Date: 15 April 2019

Publication Date: 17 April 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	0	Next Sample April				
	Conductivity	µs/cm		0					
	Oil & Grease	mg/L		0					
	pH	pH		0					

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	13/03/2019	Yes			7.82
	Conductivity	µs/cm							1830
	TDS	mg/L							1070

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	27/03/2019	22:32	0.5	IA	35	IA	45	0	Nil
NM2	27/03/2019	23:01	2.5	<25	39	<30	45	0	Nil
NM3	27/03/2019	23:29	4.4	<20	35	<25	45	0	Nil
NM4	27/03/2019	23:25	3.9	<20	35	<20	45	0	Nil
NM5	27/03/2019	22:01	1.9	IA	35	IA	45	0	Nil
NM6	27/03/2019	23:51	2.5	<20	35	<20	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	Db (Lin Peak)	All	10	93.8	103.3	120	No
	Vibration	mm/s		10	0.18	0.32	10	No

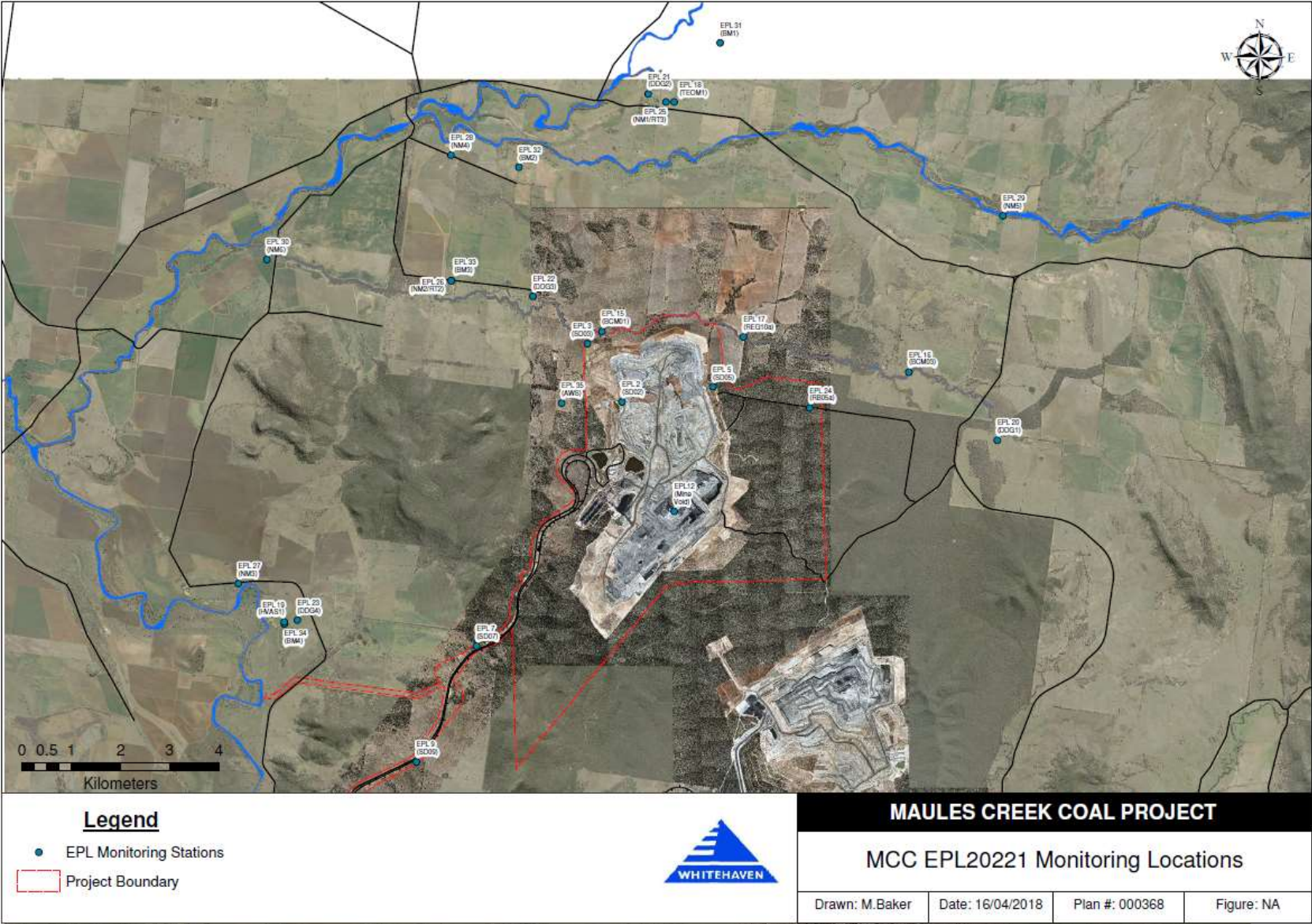
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	18.6	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	26.6	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	2.0	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.2	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	3.0	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	2.3	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: April 2019

Obtained Date: 15 May 2019

Publication Date: 17 May 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	16/04/2019	Yes			8
	Conductivity	µs/cm		1	16/04/2019	Yes			658
	Oil & Grease	mg/L		1	16/04/2019	Yes			<5
	pH	pH		1	16/04/2019	Yes			8.25

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	Next sample June				
	Conductivity	µs/cm							
	TDS	mg/L							

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	16/04/2019	22:26	2.6	IA	35	IA	45	0	Nil
NM2	16/04/2019	23:15	1.8	<30	39	37	45	0	Nil
NM3	16/04/2019	23:48	2.4	<20	35	<20	45	0	Nil
NM4	16/04/2019	22:51	2.3	IA	35	IA	45	0	Nil
NM5	16/04/2019	22:00	2.8	IA	35	IA	45	0	Nil
NM6	16/04/2019	23:33	1.8	<20	35	<20	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

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NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	Db (Lin Peak)	All	9	93.64	104.60	120	No
	Vibration	mm/s		9	0.21	0.51	10	No

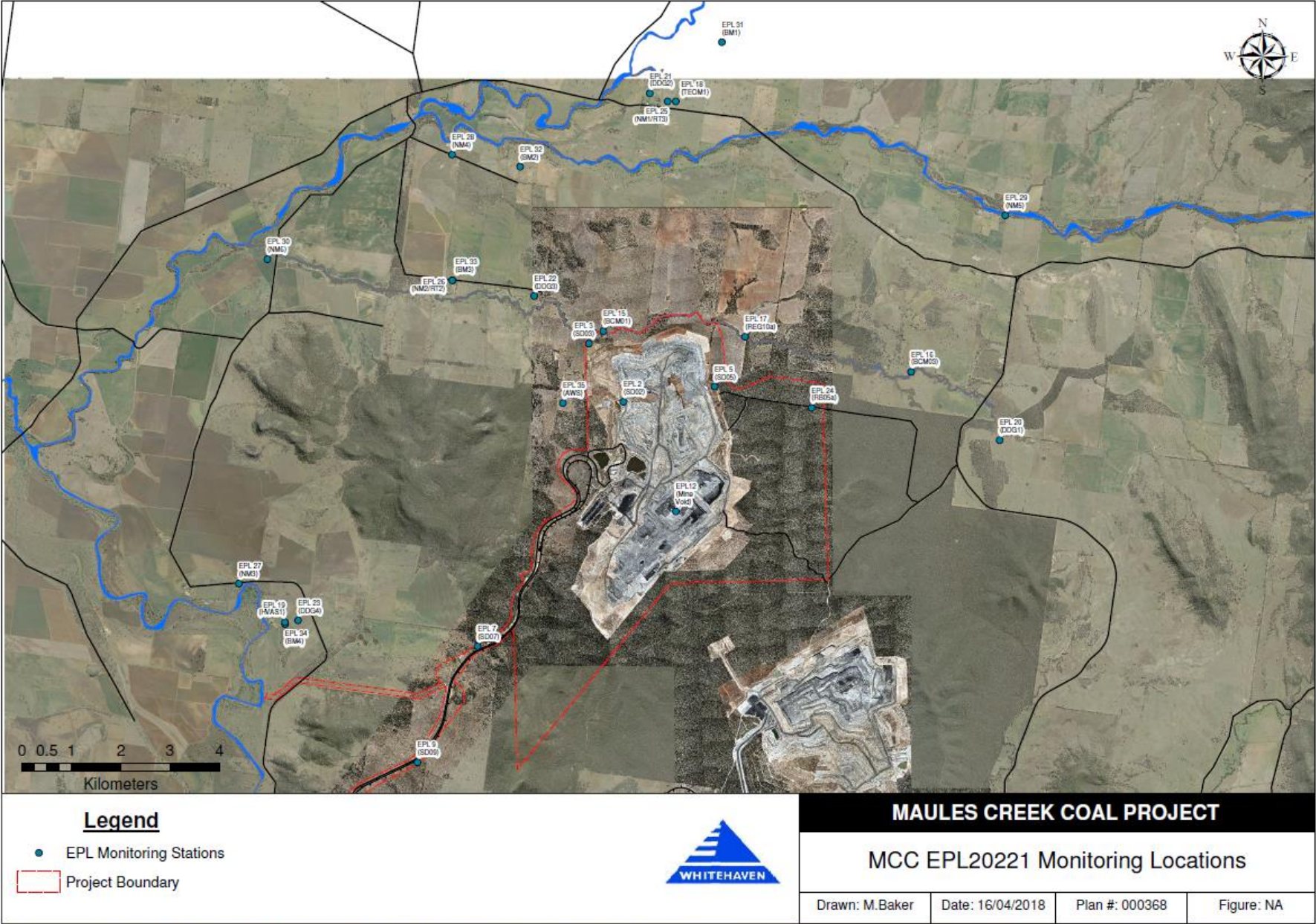
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m³ month	PM ₁₀	18.6	30	No
19 (HVAS)	6 days	µg/m³	PM ₁₀	27.4	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	1.9	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.4	4	No
22 (DDG3/MC3)	Monthly	g/m² month	3.1	4	No
23 (DDG4/MC4)	Monthly	g/m² month	2.3	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: May 2019

Obtained Date: 14 June 2019

Publication Date: 17 June 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0	6/05/2019					372
	Conductivity	µs/cm		0	6/05/2019					357
	Oil & Grease	mg/L		0	6/05/2019					<5
	pH	pH		0	6/05/2019					7.87

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	16/04/2019	Yes			48
	Conductivity	µs/cm		1	16/04/2019	Yes			774
	Oil & Grease	mg/L		1	16/04/2019	Yes			<5
	pH	pH		1	16/04/2019	Yes			7.85

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value										
15 (BCM01)	pH	pH	Quarterly	0					Bore dry since installation										
	Conductivity	µs/cm																	
	TDS	mg/L																	
16 (BCM03)	pH	pH	Quarterly	0										Bore dry since installation					
	Conductivity	µs/cm																	
	TDS	mg/L																	
17 (REG10A)	pH	pH	Quarterly	0															Bore dry since installation
	Conductivity	µs/cm																	
	TDS	mg/L																	
24 (RB05A)	pH	pH	Quarterly	0					Next sample June										
	Conductivity	µs/cm																	
	TDS	mg/L																	

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LAeq 1min dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	02/05/2019	22:30	0.6	IA	35	IA	45	0	Nil
NM2	02/05/2019	23:20	0.7	NM	39	NM	45	0	Nil
NM3	02/05/2019	23:39	0.6	IA	35	IA	45	0	Nil
NM4	02/05/2019	22:56	0.5	IA	35	IA	45	0	Nil
NM5	02/05/2019	22:00	0.7	IA	35	IA	45	0	Nil
NM6	02/05/2019	23:48	0.6	IA	35	IA	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	Db (Lin Peak)	All	15	91.26	108.4	120	No
	Vibration	mm/s		15	0.17	0.49	10	No

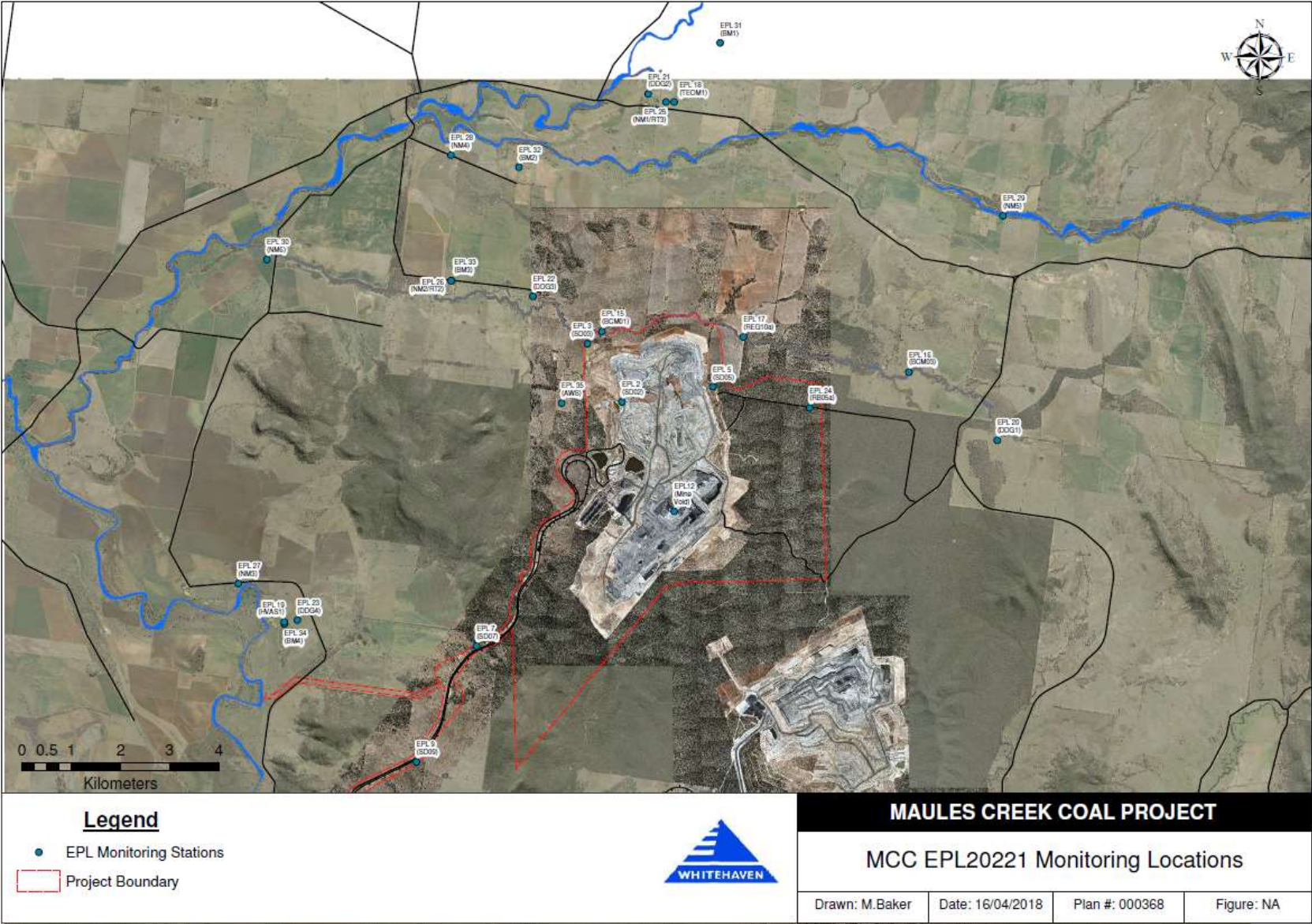
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	18.5	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	27.8	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	1.9	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.5	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	3.2	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	2.3	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: June 2019

Obtained Date: 15 July 2019

Publication Date: 22 July 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	13/06/2019	Yes			<5
	Conductivity	µs/cm		1	13/06/2019	Yes			814
	Oil & Grease	mg/L		1	13/06/2019	Yes			<5
	pH	pH		1	13/06/2019	Yes			8.11

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	7/06/2019	Yes			7.93
	Conductivity	µs/cm			7/06/2019	Yes			1920
	TDS	mg/L			7/06/2019	Yes			960

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LA1(1min) dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	05/06/2019	22:30	0.5	30	35	35	45	0	Nil
NM2	05/06/2019	23:30	0.4	34	39	40	45	0	Nil
NM3	05/06/2019	23:42	0.5	29	35	35	45	0	Nil
NM4	05/06/2019	23:00	0.3	33	35	40	45	0	Nil
NM5	05/06/2019	22:00	0.7	<25	35	<25	45	0	Nil
NM6	06/06/2019	00:00	0.6	<25	35	<25	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	Db (Lin Peak)	All	7	91.03	105.10	120	No
	Vibration	mm/s		7	0.3	1.39	10	No

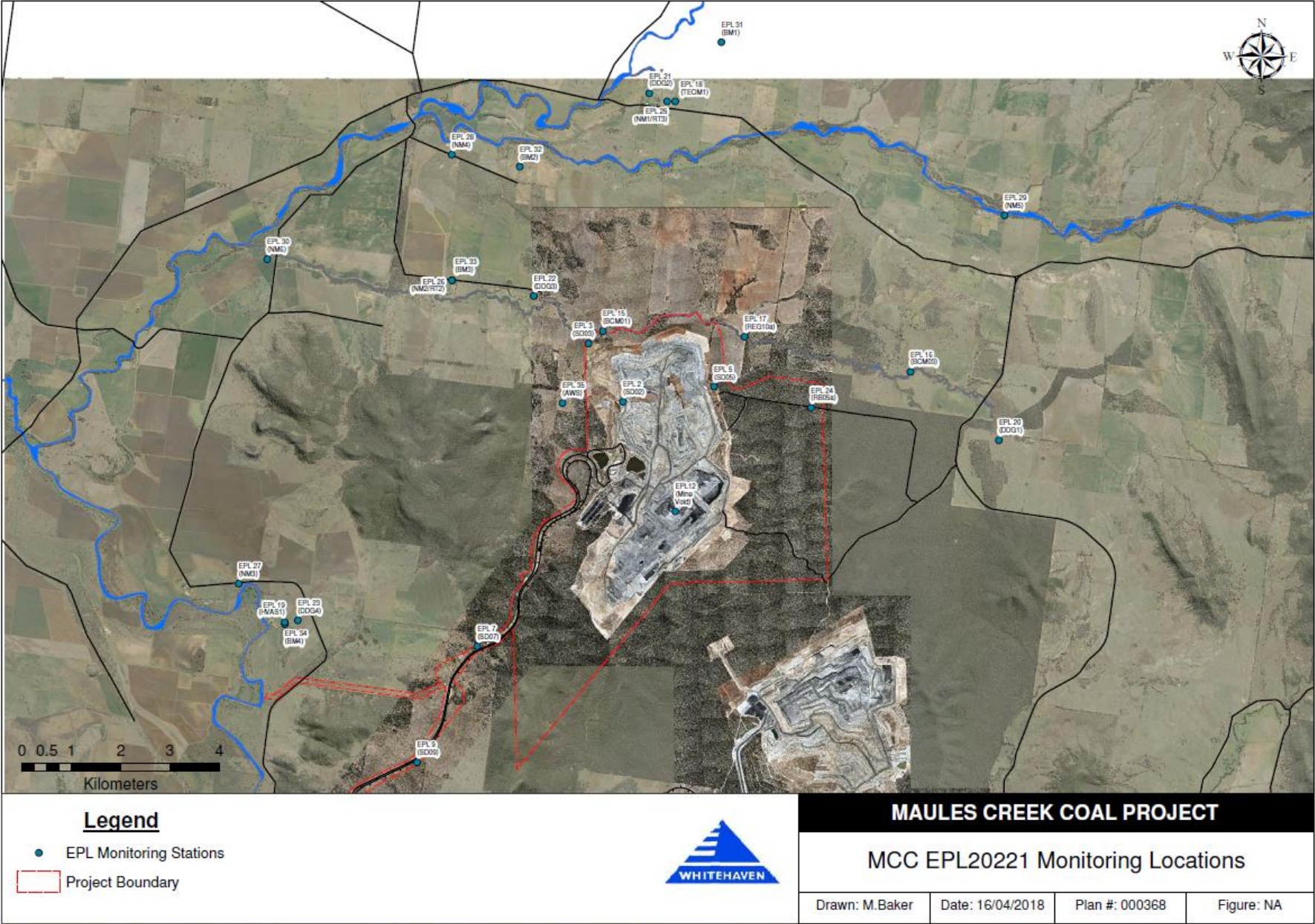
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	18.5	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	28.0	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	1.9	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.5	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	3.1	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	2.2	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: July 2019

Obtained Date: 15 August 2019

Publication Date: 20 August 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	15/07/2019	Yes			190
	Conductivity	µs/cm		1	15/07/2019	Yes			695
	Oil & Grease	mg/L		1	15/07/2019	Yes			<5
	pH	pH		1	15/07/2019	Yes			8.11

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	Next sample September				
	Conductivity	µs/cm							
	TDS	mg/L							

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LA1(1min) dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	08/07/2019	22:45	0.2	<25	35	33	45	0	Nil
NM2	08/07/2019	23:45	1.0	<25	39	26	45	0	Nil
NM3	08/07/2019	23:40	1.1	IA	35	IA	45	0	Nil
NM4	08/07/2019	23:15	1.3	22	35	29	45	0	Nil
NM5	08/07/2019	22:15	0.8	<25	35	28	45	0	Nil
NM6	09/07/2019	00:13	1.0	IA	35	IA	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	Db (Lin Peak)	All	11	93.17	115	120	No
	Vibration	mm/s		11	0.2	0.89	10	No

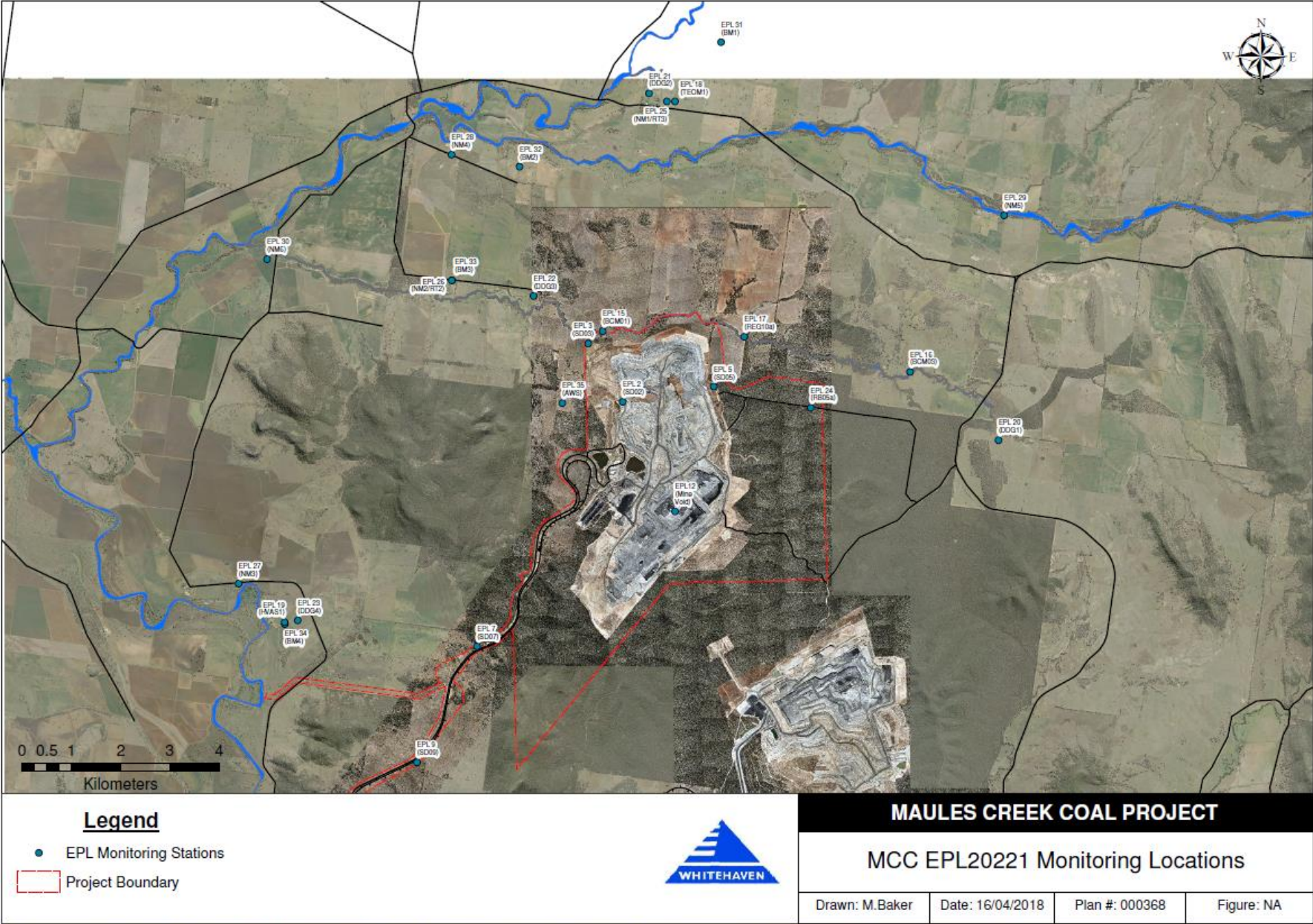
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	18.6	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	27.6	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	1.9	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.4	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	3.3	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	2.0	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: August 2019

Obtained Date: 15 September 2019

Publication Date: 18 September 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	15/08/2019	Yes			97
	Conductivity	µs/cm		1	15/08/2019	Yes			813
	Oil & Grease	mg/L		1	15/08/2019	Yes			<5
	pH	pH		1	15/08/2019	Yes			8.22

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	Next Sample September				
	Conductivity	µs/cm							
	TDS	mg/L							

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LA1(1min) dB	Limit LA1 (1 min) (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	07/08/2019	22:30	0.8	IA	35	IA	45	0	Nil
NM2	07/08/2019	23:15	0.4	IA	39	IA	45	0	Nil
NM3	07/08/2019	23:34	0.3	IA	35	IA	45	0	Nil
NM4	07/08/2019	22:52	0.5	IA	35	IA	45	0	Nil
NM5	07/08/2019	22:00	0.5	IA	35	IA	45	0	Nil
NM6	07/08/2019	23:40	0.3	IA	35	IA	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Noise	Db (Lin Peak)	All	12	91.79	110.2	120	No
	Vibration	mm/s		12	0.20	0.74	10	No

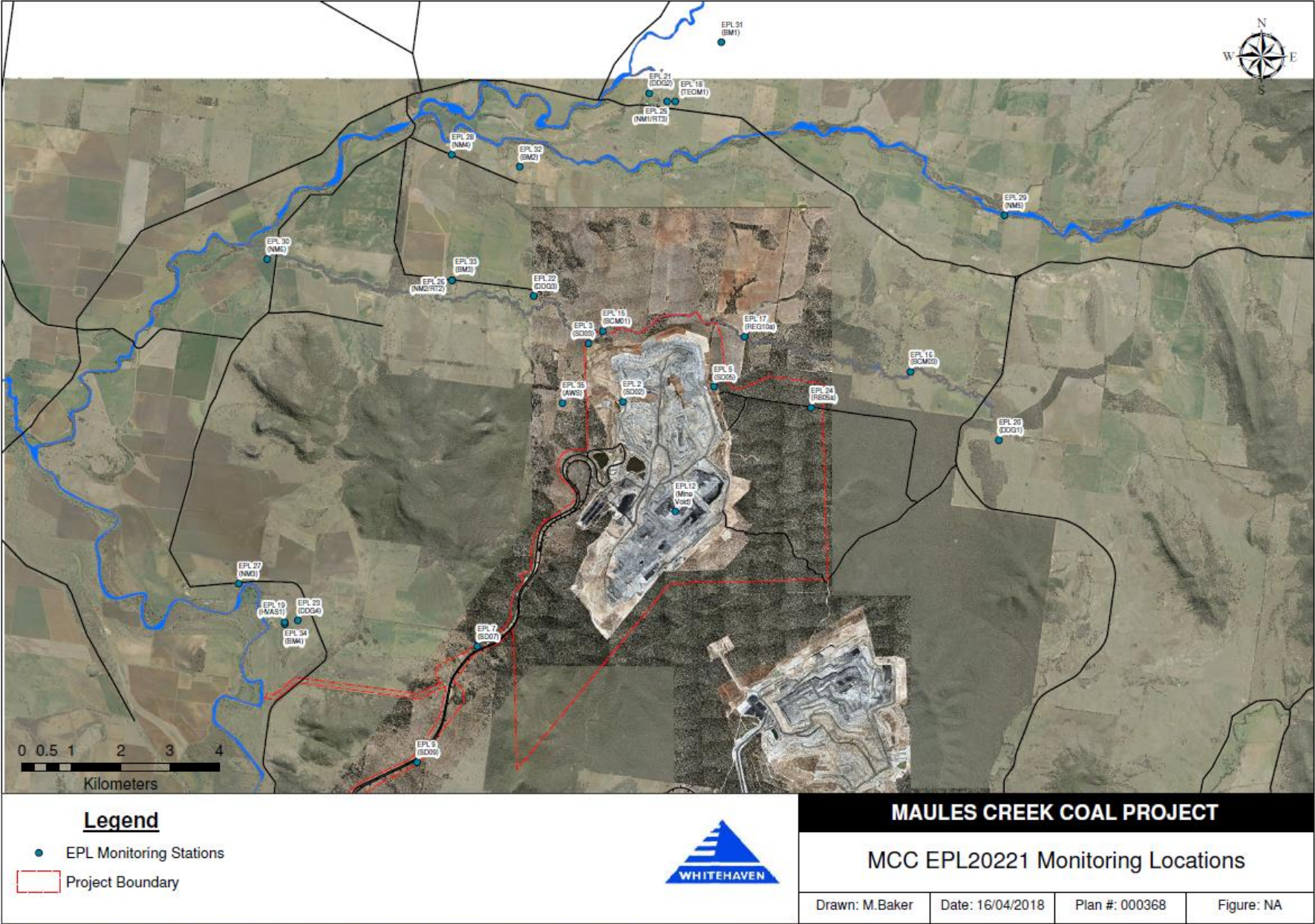
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	18.6	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	27.5	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	1.9	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.4	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	3.3	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	2.0	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: September 2019

Obtained Date: 15 October 2019

Publication Date: 23 October 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	12/09/2019	Yes			10
	Conductivity	µs/cm		1	12/09/2019	Yes			928
	Oil & Grease	mg/L		1	12/09/2019	Yes			<5
	pH	pH		1	12/09/2019	Yes			8.42

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	1	10/09/2019	Yes			7.63
	Conductivity	µs/cm			10/09/2019	Yes			1990
	TDS	mg/L			10/09/2019	Yes			1020

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LA1(1min) dB	Limit LA1 (1 min) (dB) Operations Criteria	Rain (mm)	Exceedance (Yes / No)
NM1	23/09/2019	22:45	1.1	29	35	46	45	0	1
NM1	23/09/2019	23:06	1.7	31	35	39	45	0	Nil
NM2	24/09/2019	00:15	1.4	31	39	37	45	0	Nil
NM3	23/09/2019	23:37	1.3	IA	35	IA	45	0	Nil
NM4	23/09/2019	23:45	1.2	28	35	40	45	0	Nil
NM5	23/09/2019	22:15	1.8	<25	35	29	45	0	Nil
NM6	24/09/2019	00:40	0.4	<20	35	<20	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	11	88.51	110	120	No
	Vibration	mm/s		11	0.23	0.98	10	No

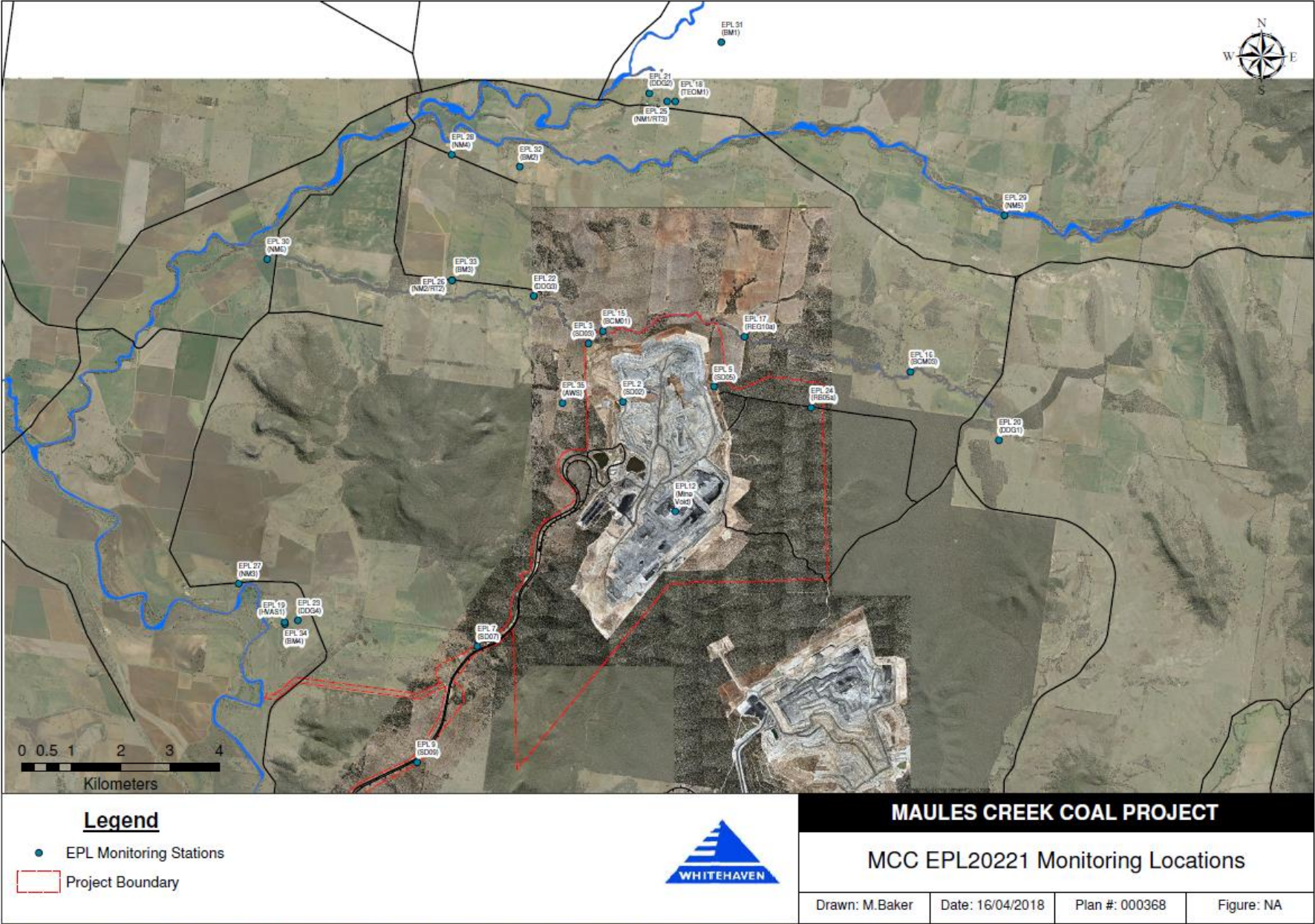
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	20	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	29.1	30	No

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	1.8	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.2	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	3.1	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	1.8	4	No

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: October 2019

Obtained Date: 15 November 2019

Publication Date: 20 November 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	14/10/2019	Yes			49
	Conductivity	µs/cm		1	14/10/2019	Yes			957
	Oil & Grease	mg/L		1	14/10/2019	Yes			<5
	pH	pH		1	14/10/2019	Yes			6.93

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	Next sample to be taken in December				
	Conductivity	µs/cm							
	TDS	mg/L							

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LA1(1min) dB	Limit LA1 (1 min) (dB) Operations Criteria	Rain (mm)	Exceedance (Yes / No)
NM1	10/10/2019	22:30	2.8	<25	35	32	45	0	Nil
NM2	10/10/2019	23:00	2.6	32	39	38	45	0	Nil
NM3	10/10/2019	23:24	2.4	<25	35	30	45	0	Nil
NM4	10/10/2019	23:30	2.7	<25	35	<25	45	0	Nil
NM5	10/10/2019	22:00	2.1	IA	35	IA	45	0	Nil
NM6	10/10/2019	23:54	2.9	IA	35	IA	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	10	92.3	113.20	120	No
	Vibration	mm/s		10	0.23	1.12	10	No

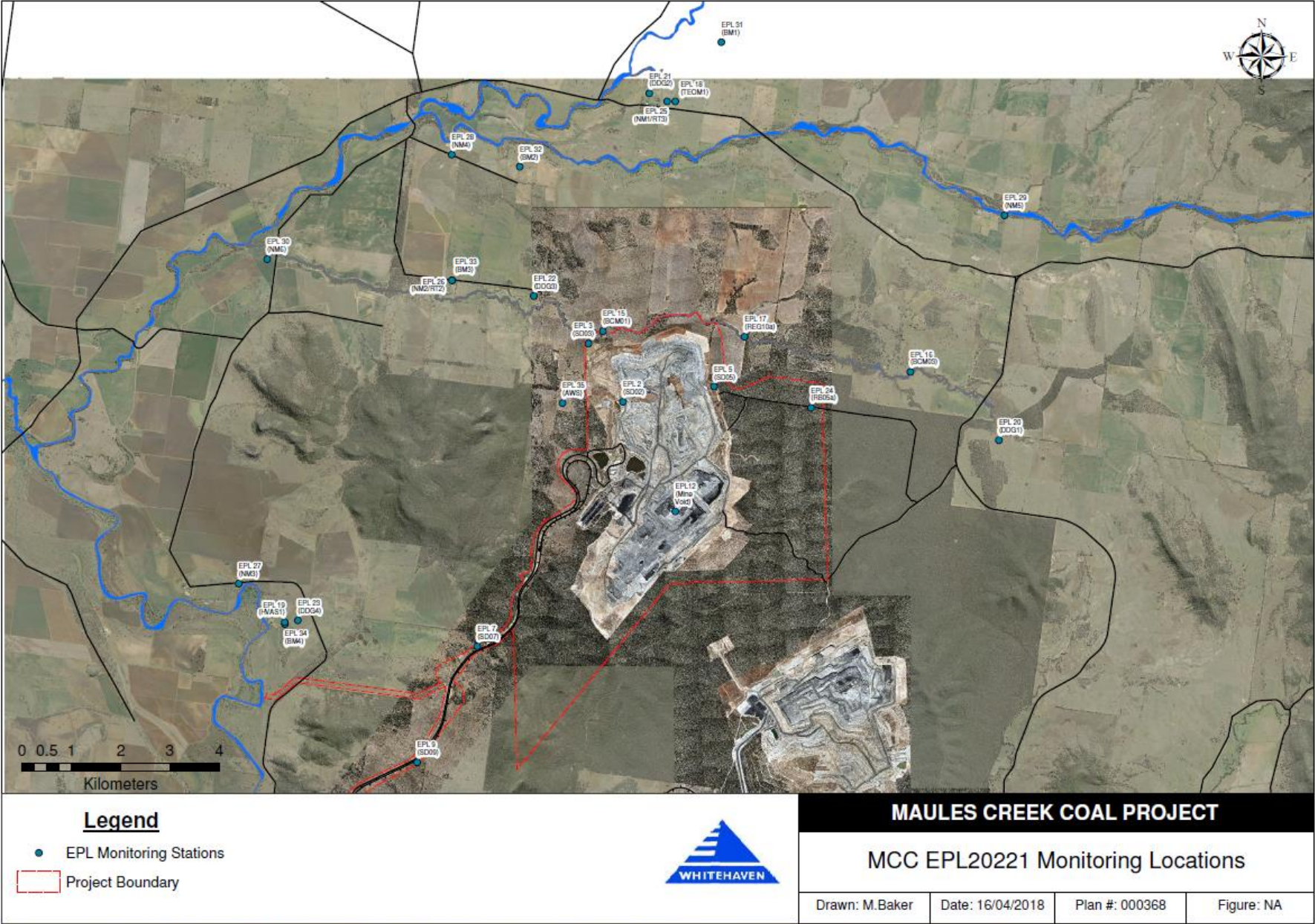
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	23	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	32.6	30	Yes

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	2.0	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.5	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	3.0	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	6.9	4	Yes

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: November 2019

Obtained Date: 15 December 2019

Publication Date: 20 December 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	15/11/2019	Yes			<5
	Conductivity	µs/cm		1	15/11/2019	Yes			1110
	Oil & Grease	mg/L		1	15/11/2019	Yes			<5
	pH	pH		1	15/11/2019	Yes			8.65

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	Next sample to be taken in December				
	Conductivity	µs/cm							
	TDS	mg/L							

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LA1(1min) dB	Limit LA1 (1 min) (dB) Operations Criteria	Rain (mm)	Exceedance (Yes / No)
NM1	14/11/2019	22:30	0.2	25	35	33	45	0	Nil
NM2	14/11/2019	23:30	0.2	<25	39	35	45	0	Nil
NM3	14/11/2019	23:45	0.6	IA	35	IA	45	0	Nil
NM4	14/11/2019	23:00	0.3	<25	35	29	45	0	Nil
NM5	14/11/2019	22:00	0.6	<25	35	28	45	0	Nil
NM6	14/11/2019	23:56	0.2	IA	35	IA	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	7	93.9	100.2	120	No
	Vibration	mm/s		7	0.16	0.35	10	No

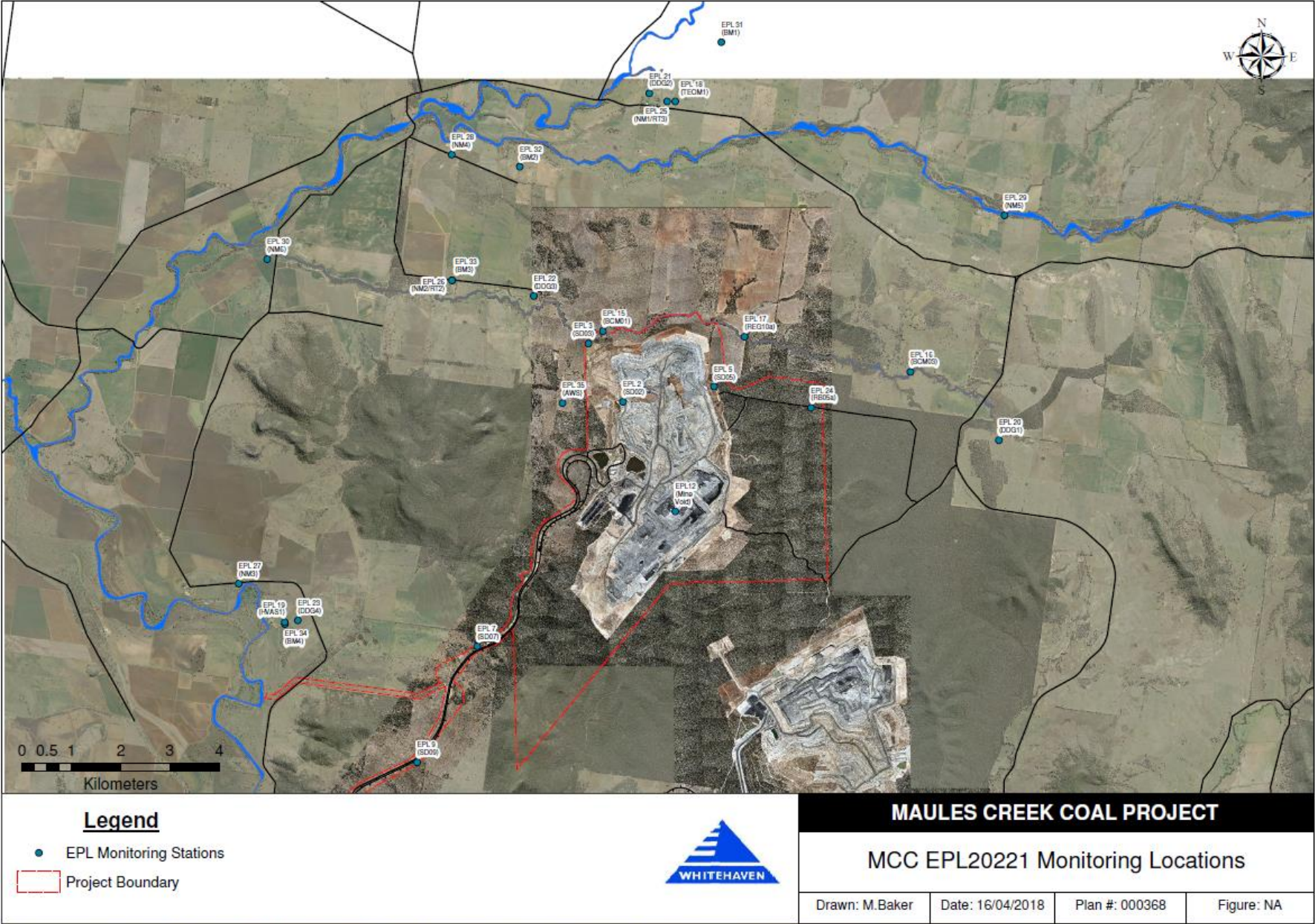
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	25.5	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	34.1	30	Yes

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	2.1	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.4	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	2.8	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	6.6	4	Yes

Figure 1 - EPL 20221 Monitoring Locations





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: December 2019

Obtained Date: 15 January 2020

Publication Date: 16 January 2020

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7th March 2018 by the NSW Environment Protection Authority (EPA).

Monthly Monitoring Summary

Table 1 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
2 (SD2)	TSS	mg/L	Special Frequency Discharge only	0	No discharge at this location this month.					
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
3 (SD3)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
5 (SD5)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
7 (SD7)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						
9 (SD9)	TSS	mg/L	Special Frequency Discharge only	0						
	Conductivity	µs/cm		0						
	Oil & Grease	mg/L		0						
	pH	pH		0						

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
12 (Mine Void)	TSS	mg/L	Every 2 months	1	16/12/2019	Yes			8
	Conductivity	µs/cm		1	16/12/2019	Yes			1070
	Oil & Grease	mg/L		1	16/12/2019	Yes			<5
	pH	pH		1	16/12/2019	Yes			8.8

Table 3 – Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Bore dry since installation				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0	Next sample to be taken next quarter.				
	Conductivity	µs/cm							
	TDS	mg/L							

Table 4 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq 15min dB	Limit LAeq 15min (dB) Operations Criteria	MCCP LA1(1min) dB	Limit LA1 (1 min) (dB) Operations Criteria	Rain (mm)	Exceedance (Yes / No)
NM1	02/12/2019	22:51	1.1	<30	35	31	45	0	Nil
NM2	02/12/2019	23:46	1.4	IA	39	IA	45	0	Nil
NM3	02/12/2019	23:25	1.4	IA	35	IA	45	0	Nil
NM4	02/12/2019	23:22	1.4	<25	35	<25	45	0	Nil
NM5	02/12/2019	22:21	2.7	IA	35	IA	45	0	Nil
NM6	03/12/2019	00:12	1.5	IA	35	IA	45	0	Nil

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

Table 5 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore no further assessment of low frequency noise was required to be undertaken.

Table 6 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations Blasts	Overpressure	Db (Lin Peak)	All	7	95.1	106.7	120	No
	Vibration	mm/s		7	0.15	0.59	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

Table 7 – Dust Monitoring (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m ³ month	PM ₁₀	28.2	30	No
19 (HVAS)	6 days	µg/m ³	PM ₁₀	33.7	30	Yes

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m ² month	2.1	4	No
21 (DDG2/MC2)	Monthly	g/m ² month	2.4	4	No
22 (DDG3/MC3)	Monthly	g/m ² month	2.8	4	No
23 (DDG4/MC4)	Monthly	g/m ² month	6.7	4	Yes

Figure 1 - EPL 20221 Monitoring Locations

